



LTP Learning Technologies Project Bulletin

Brought to you by NASA, BDM International, & West Virginia University

Nothin'— but Net



Graphics Basics— Be Kind to Your Designs

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Graphics on a page should offer relief to the eyes. It's no fun (not to mention difficult) to scan lengths of text without an occasional break. A good graphic or image can enhance a written material's tone, meaning,

and overall aesthetic appeal. Graphics should do this in all mediums, on all levels. They are a vital aspect of Web design.

It would be easy to lose interest in a Web page that is devoid of design elements, but using various formats, filters, software, and, of course, imagination, graphic artists are able to create appealing designs.

Because of the technical considerations involved, designing graphics for pages on the Web can be a little confusing for the beginner. When designing for the Web, perhaps the most important aspect to consider is size. A major goal is to keep a graphic's file size small because it contributes to the size and loading time of the entire page. The graphic's format is also important. GIF and JPEG formats are universally recognized and supported by all browsers, but you have to know which to use.

JPEG, short for Joint Photographic Experts Group, is a lossy compression technique for color images. It can reduce files

to 5% of their normal size, but will lose some detail. JPEG compression will work best with photographs and images with a lot of color or fine detail.

GIF, which stands for Graphics Interchange Format, supports colors and various resolutions. If you're using a line drawing or simple artwork, GIF can be used to keep the file size small. GIF images offer the ability to limit the range of color in a way that is not suitable for most photographs or high-color work. To determine which will work best, try both formats.

Another way to reduce the file size of an image is to reduce the number of colors in the image. The file will be smaller if the image's height and width are small. If you're trying to speed up the download time of an image, try reducing the size, using less colors, changing the format, using a lower-quality image, or limiting the amount of detail.

Buttons, logos, and pictures are three very important and commonly used graphic

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News— Bytes

NASA Spacelink Improved and Enhanced

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Educators and students looking for NASA information and educational resources on the Internet can now locate items more quickly because of enhancements to NASA Spacelink. Spacelink is one of NASA's three primary Internet resources for the education community, with the NASA Education homepage (www.hq.nasa.gov/education) serving as a high-level resource

for information about the scope and mission of the agency's overall educational efforts. Quest (quest.arc.nasa.gov) takes the lead in the development of interactive projects.

Spacelink is now a "virtual library" in which local files and hundreds of NASA World Wide Web links are arranged in a manner that will be familiar to educators. Educators can also search this virtual library using the Spacelink search engine to locate information, regardless of its location within NASA. Special events, missions, and intriguing NASA Web sites are featured in "Hot Topics" and "Cool Picks." Links to Web sites listed in these areas change frequently as events and activities change within NASA.

Spacelink is the official home to electronic versions of NASA's educational prod-

ucts. For completeness and ease of access, the educational products area has been redesigned as a single product list. NASA educator guides, educational briefs, lithographs, and other materials (available in .PDF format) are also cross-referenced throughout Spacelink for greater accessibility. Another improvement is that the NASA Television Education File schedule is now presented in an easy-to-read calendar format. The schedule of educational programming includes descriptions of the programs that are planned for broadcast and links to related NASA educational materials or Web sites.

Educators can quickly learn of new NASA educational products by subscribing to Spacelink EXPRESS. Spacelink EXPRESS is an electronic mailing list that informs subscribers by e-mail when new

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elements on the Web. When designing and placing these elements, always consider their relativity to the rest of the page. Buttons are vital to a site's navigation, and a reader should always know where and what the buttons are on a page. There should never be a question as to whether or not an image is a button. It may help to limit buttons to beveled circles or 3-D shapes. Try something new and use a background image behind buttons, or use filters and incorporate designs that stand out from the usual clickable objects. Logos and headers should have a common theme that is carried out throughout all the pages on which they appear.

Logos offer another chance to implement creative ability and give the site its "identity." Pictures and images can spice up a less than interesting part of a page. Remember to always frame the image or use some other element to tie it in with the page. A simple scanned photo will not contribute to the design. These elements will allow you to use your creative abilities, but watch out — they can easily be overdone.

Pay close attention to the sensible middle ground and beware of underdesigning or overdesigning. Remember not to overuse filters because they can take away from the integrity of the design. GIF animations are a nice touch to add to graphics, but if they are overused or overtly annoying they will detract from the overall design. Concentrate on the overall effect graphics have on a page. Evaluate their stand-

alone content as well as how they relate to the page as a whole.

Graphics can be hip and wild or purely practical. If the page is going to have a crazy, cool look, still be gentle with your techniques. Don't overdo background patterns, filters, glows, and shadows. On the flip side, if the design is to be practical, pay close attention to readability and the cleanness and sharpness of the images and graphics. Sloppy edges won't go over well if the goal is to create a businesslike impression.

There are guidelines, but no rules for designing a good graphic. Remember to consider the file size and intended use of the graphic. Graphics are meant to reinforce, illustrate, and complement a page. A well-designed graphic reflects the designer's technical and creative abilities, and greatly enhances the page it is on.

H Highlights— & Happenings

MCET News and Web Update

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News from the Schools

Students from Malden Middle School, Randolph Junior/Senior High School, and East Boston High School participated in the Aviation Career Expo, held at Boston's Logan International Airport on May 6.

This annual event, organized by the Concerned Minority Employees (CME) of the Massachusetts Port Authority organization, in collaboration with the Federal Aviation Administration (FAA), the Massachusetts Pre-Engineering Program (MASSPEP, Inc.), and United Airlines, attracted 2,000 ≤ 3,000 students from schools in Massachusetts and neighboring states. The Expo is intended to expose the students to a broad range of activities, such as practicing piloting skills with the help of a volunteer in-

structor on a flight simulator, or experiencing the feeling of a real aircraft (many are available in the exhibit area for the students to explore). Students have the opportunity to talk directly with the hundreds of aviation professionals who volunteer for the event and learn about the many possibilities available in the field.

Danvers High School has received a new computer to support the classroom activities associated with Take Off!. The new computer will be connected to the Internet and to a 27-inch TV monitor, and will be located in the classroom. The grant will also support the purchase of a flight simulator and a flight yoke for the school. With the aid of the TV monitor, the teachers hope to create a favorable environment for classroom instruction and activities that combine the Take Off! series with use of the Internet and practical applications of flight principles demonstrated with the simulator. The teachers and students at Danvers High School are planning a trip to the Beverly Airport in Beverly, MA, in June, at the end of the Take Off! season.

The Web Site

The new version of the Career Cards was linked in May. The development team is still working on the final version of the

front page and on developing content for the Teacher's Lounge page, which is now empty.

The WebTrends software has been successfully installed and configured to analyze MCET's Web server access log files. Of the total number of hits, 64% were internal to the US, 18% were international, and the rest were of unknown origin.

Users prefer Netscape (61%) to Internet Explorer (34%), and most use Windows 95 platforms. Similar statistics were generated for the months during the period July 1997 through April 1998. The traffic on the Web site has been increasing steadily, from total hits in the 10K level from July through November 1997, to 40K-50K during April and May 1998.

A complete list of the results of the Web access statistics will be included in the final evaluation report prepared by the Educational Alliance@Brown University, which should be completed in June.

This bulletin will also be available in Adobe Acrobat format on the Developers' Workshop Web site at: <http://developers.ivv.nasa.gov/collab/pubs/bulletin/>

News

—Bytes (cont.)

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NASA educational publications become available on Spacelink. The Spacelink search engine is also useful for quickly locating hard-to-find information. Spacelink Search utilizes a "natural language" querying, allowing the user to input a phrase or sentence that relates to the information being sought. Spacelink Search also permits users to search virtually all of NASA's public Web pages in addition to the Spacelink Library. An understanding of the organizational structure of NASA is not required.

Since 1988, NASA Spacelink has been recognized by the computing, scientific, and education communities as a great source of

information. Looking for NASA information on the Internet? Start with NASA Spacelink!

Spacelink may be accessed at <http://spacelink.nasa.gov>. For additional information, send e-mail to comments@spacelink.nasa.gov.

RSPAC Remains Available for Graphics, Programming, and Other Support

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I would like to say hello to everyone I met at the Learning Technologies Project conference in Maine. The conference offered

a great opportunity for me to speak with so many of you and get to know more about your projects and how RSPAC can be of assistance to you.

I would also like to thank those of you who have been a part of the great response I'm getting on the LTP Education Chart. Because of the quick response to the request for input, this project should be completed within the next week or two. If you haven't had the opportunity to get back to me yet, please send an e-mail at your earliest convenience.

The LTP conference was a great learning experience for me and I am looking forward to working with all of the projects in the near future. Remember that members of the RSPAC staff are available for graphics, programming, and a variety of other support services to each of you.

Nothin'

but Net(cont.)

JavaShop Features Array of Applets to Spice Up LTP Groups' Web Sites

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Does your Web site need a little pizzazz? A little hitch in its giddy-up? A little Web Spice?

If you're looking to make your Learning Technologies Project group's Web site attractive, fun, interactive, and memorable to visitors, try adding some of the many applets that are now available in RSPAC's JavaShop.

To date, nine different tools are featured in JavaShop, an online warehouse of applets located on the Developers' Workshop at <http://developers.ivv.nasa.gov/tech/javashop>.

Brought to you by the Remote Sensing Public Access Center's (RSPAC) Web wizards, the JavaShop applets provide

projects with exciting new Java technology that's easily customized and incorporated into your LTP Web site.

RSPAC adds at least one new applet to the site each month, so include JavaShop in your list of bookmarks and check back with us soon to see what's new.

Among the JavaShop productions now available to LTP groups:

Drop Down Menu Applet

The drop down menu applet provides an easy way to navigate your site.

Crossword Puzzle

All you need are the words and clues and this applet will create the puzzles for you.

The Scroller

The Scroller enables you to provide scrolling text containing HTML links.

Java Hangman

A fun and educational game for all ages.

Java Animator

A user-controlled slide show applet.

Headline Scroller

Scroll through a list of headlines.

Wordsearch

Search for hidden words from a large grid.

Line Graph

Draw a line graph to illustrate your Web articles.

Pie Chart

Like line graphs, pie charts are great for showing statistics, progress, etc.

After using any of the JavaShop productions, please let the creators know what you liked and disliked, or about features you would like to see added. Send your comments to JavaShop@rspac.ivv.nasa.gov.

If you would like to be on the LTP Bulletin mailing list, please send e-mail to Scott Gillespie at: sgillespie@rspac.ivv.nasa.gov, or write to: BDM/RSPAC, 100 University Drive, Fairmont, WV 26554. Phone: (304) 367-8324, fax: (304) 367-8211.

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Public Connection Completes Space Update CD-ROM

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The Public Connection has essentially completed the full version 2.0 Space Update CD-ROM, which is ready for beta test-

ing. This version, which uses Macromedia Director 6 software, uses JPEG for the images, and as a result it is much less storage-intensive. This should allow the Windows and Mac versions to fit on the same CD.

Unfortunately, the upgrade to Director 6 means that Windows 3.1 machines will no longer be supported, nor will 8-bit PC monitors. (It will still run on 256-color machines, but will not look as good as it would in thousands of colors.) For more information, check out the Public Connection Web site at <http://space.rice.edu/hmns>.

A new screen saver which counts down

to the millennium in Earth time and in rotations and revolutions of the other planets in the solar system is now ready for release. It will be available from <http://space.rice.edu> by June 20 in both Mac and PC versions.



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